

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2004-18729; Directorate Identifier 2004-NM-24-AD; Amendment 39-13931; AD 2005-01-07]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Boeing Model 747-100 and -200B Series Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

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**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Boeing Model 747-100 and -200B series airplanes. This AD requires installing bonding clips and bonding jumpers from the housing of each fuel pump to airplane structure outside the fuel tanks. This AD is prompted by the results of fuel system reviews conducted by the manufacturer. We are issuing this AD to ensure adequate electrical bonding between the housing of each fuel pump and airplane structure outside the fuel tanks. Inadequate electrical bonding, in the event of a lightning strike or pump electrical fault, could cause electrical arcing and ignition of fuel vapor in the wing fuel tank, which could result in a fuel tank explosion.

**DATES:** This AD becomes effective February 11, 2005.

The incorporation by reference of a certain publication listed in the AD is approved by the Director of the Federal Register as of February 11, 2005.

**ADDRESSES:** For service information identified in this AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207.

You can examine this information at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

You can examine the contents of this AD docket on the Internet at <http://dms.dot.gov>, or at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., room PL-401, on the plaza level of the Nassif Building, Washington, DC.

## **FOR FURTHER INFORMATION CONTACT:**

Technical information: Dan Kinney, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6499; fax (425) 917-6590.

Plain language information: Marcia Walters, [marcia.walters@faa.gov](mailto:marcia.walters@faa.gov).

## **Examining the Docket**

The AD docket contains the proposed AD, comments, and any final disposition. You can examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the DOT street address stated in the ADDRESSES section.

**SUPPLEMENTARY INFORMATION:** The FAA proposed to amend 14 CFR part 39 with an AD for certain Boeing Model 747-100 and -200B series airplanes. That action, published in the Federal Register on August 6, 2004 (69 FR 47814), proposed to require installing bonding clips and bonding jumpers from the housing of each fuel pump to airplane structure outside the fuel tanks.

## **Comments**

We provided the public the opportunity to participate in the development of this AD. We have considered the comments submitted on the proposed AD.

## **Request To Revise Bonding Resistance Values**

The commenters state that there is a discrepancy in Boeing Alert Service Bulletin 747-28A2033, Revision 1, dated December 18, 2003. The discrepancy is the different maximum allowable resistance values for the boost pumps and the override jettison pumps. The resistance value for the boost pumps is 0.0004 ohm. The resistance value for the jettison pumps is 0.0002 ohm. One of the commenters notes that the same bonding jumper is used for each type of pump. We infer that the commenter requests that either of the resistance values be changed so the values are the same for the boost and override jettison pumps. The other commenter requests revising the proposed AD, or contacting the manufacturer so the service bulletin can be revised to correct the discrepancy.

The FAA does not agree that there is an error in the resistance values stated in Boeing Alert Service Bulletin 747-28A2033, Revision 1. The resistance values stated in the service bulletin are correct, and are based upon possible fault current magnitudes, which are different for the two pump types. This AD has not been changed regarding this issue.

## **Conclusion**

We have carefully reviewed the available data, including the comments that have been submitted, and determined that air safety and the public interest require adopting the AD as proposed.

## **Costs of Compliance**

This AD affects about 158 airplanes worldwide. The following table provides the estimated costs for U.S. operators to comply with this AD.

### ESTIMATED COSTS

Action	Work hours	Average labor rate per hour	Parts	Cost per airplane	Number of U.S.-registered airplanes	Fleet cost
Installation of Bonding Clips/Jumpers	8	\$65	\$0	\$520	23	\$11,960

### Authority for This Rulemaking

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in subtitle VII, part A, subpart III, section 44701, "General requirements." Under that section, the FAA is charged with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this AD.

### Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD. See the ADDRESSES section for a location to examine the regulatory evaluation.

### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "[www.faa.gov](http://www.faa.gov)"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2005-01-07 Boeing:** Amendment 39-13931. Docket No. FAA-2004-18729; Directorate Identifier 2004-NM-24-AD.

## Effective Date

- (a) This AD becomes effective February 11, 2005.

## Affected ADs

- (b) None.

## Applicability

- (c) This AD applies to Boeing Model 747-100 and -200B series airplanes having line numbers 1 through 167 inclusive, certificated in any category.

## Unsafe Condition

- (d) This AD was prompted by the results of fuel system reviews conducted by the manufacturer. We are issuing this AD to ensure adequate electrical bonding between the housing of each fuel pump and airplane structure outside the fuel tanks. Inadequate electrical bonding, in the event of a lightning strike or pump electrical fault, could cause electrical arcing and ignition of fuel vapor in the wing fuel tank, which could result in a fuel tank explosion.

## Compliance

- (e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

## Installation of Bonding Clips and Bonding Jumpers

- (f) Within 60 months after the effective date of this AD, install bonding clips and bonding jumpers from the housing of each fuel pump to airplane structure located outside the fuel tanks by doing all of the actions in part 1 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-28A2033, Revision 1, dated December 18, 2003.

## **Actions Done in Accordance With Previous Issue of Service Bulletin**

(g) Installations done before the effective date of this AD in accordance with Boeing Service Bulletin 747-28-2033, dated December 15, 1971, are acceptable for compliance with the requirements of this AD.

## **Alternative Methods of Compliance (AMOCs)**

(h) The Manager, Seattle Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

## **Material Incorporated by Reference**

(i) You must use Boeing Alert Service Bulletin 747-28A2033, Revision 1, dated December 18, 2003, to perform the actions that are required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approves the incorporation by reference of this document in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. For copies of the service information, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207.

For information on the availability of this material at the National Archives and Records Administration (NARA), call (202) 741-6030, or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). You may view the AD docket at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., Room PL-401, Nassif Building, Washington, DC.

Issued in Renton, Washington, on December 27, 2004.

Kevin M. Mullin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 05-162 Filed 1-6-05; 8:45 am]

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